

V4C-O2E™ Oxygen Mixer





Quick Start Guide and Packing List

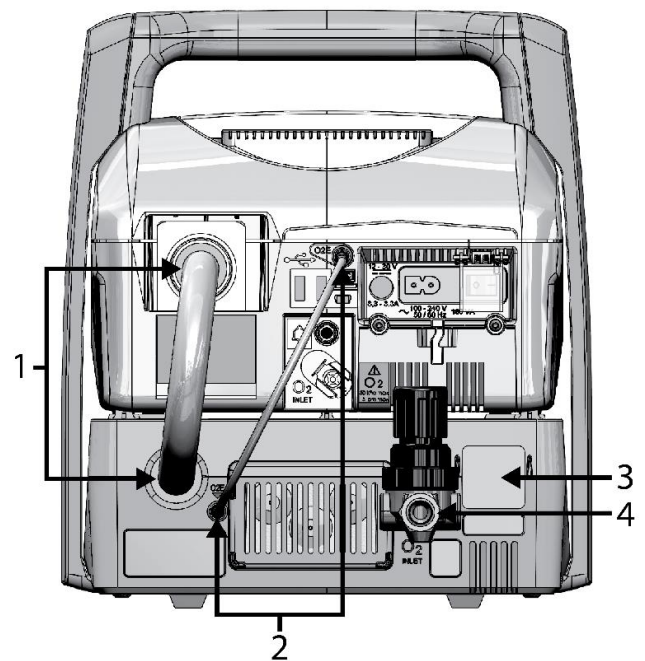
Packing List


Item	Catalogue Number
1 x V4C-O2E Oxygen Mixer	V4C-O2E
1 x Handle	
2 x Side Arms	
6 x M6 Washers	INSTKIT24O2E
6 x M6 Screws	
1 x M6 Allen key	
4 x Ventilator adhesive feet	
1x Alcohol Swab	N/A

Item	Catalogue Number
1 x Electrical Connecting Cable	CW03PVGYO2ECBL
1 x Air intake filter (pre-installed)	HW01XXXXFMINT
8 x Replacement air intake filters	
1 x Gas connection tubing	TUB0018
1 x Gas connection tubing adapter	1969000
1 x Oxygen Hose (DISS – Commonly used in Canada)	HS-10IO-DHDFC4
1 x USB Instructions for Use	QMSDMR01436-USB

Set-up


-  **WARNING:** Do not use the V4C-O2E™ Oxygen Mixer without an inspiratory bacterial filter between the ventilator's outlet and the patient. Doing so can cause cross-contamination of the Oxygen Mixer or delivery of contaminants to the patient.
 -  **WARNING:** In the event of power loss to the ventilator or Oxygen Mixer, oxygen delivery to the Oxygen Mixer will cease immediately. Safety valves on the Oxygen Mixer ensure that room air is always available to the ventilator in all fault conditions, including in an oxygen loss scenario.
 -  **NOTE:** For assembly instructions see Section 4 of the User Manual on the USB provided.
- 1) Attach the gas connection tube and adapter from the Oxygen Mixer air outlet to the ventilator (see label 1 on figure). Ensure the tube is not pinched or kinked along its length and that no filter is present between the gas connection tube and the ventilator.
 - 2) Install the V4C-O2E electrical connecting cable from the compatible ventilator O2E port to the Oxygen Mixer (see label 2 on figure).
 - 3) Confirm that the air intake filter (see label 3 on figure) is present and is not visibly soiled. Replace the air intake filter by pinching and removing the filter and installing a new one if the filter is soiled, missing, incorrectly installed, or damaged. Ensure that the filter is sitting flush with the Oxygen Mixer.
 - 4) Confirm the oxygen hose has the correct connectors for the oxygen supply used. Connect the oxygen hose to the oxygen inlet (see label 4 on figure). Connect the opposite end of the hose to an oxygen source.
 - 5) Always complete the Operational Verification Checklist and Functional Tests (Section 9 of the User Manual) prior to starting ventilation.
-  **CAUTION:** The Oxygen Mixer is rated for 20-80 psi (138-551 kPa) oxygen sources. Using higher or lower pressure oxygen sources can interfere with the operation of the Oxygen Mixer. Always ensure there is sufficient flow of oxygen.




-  **NOTE:** Oxygen delivery to the Oxygen Mixer is initiated automatically when the ventilator enters an active ventilation mode. Oxygen flow is terminated automatically when the ventilator is not actively ventilating or is powered off.

Operation


1) Calibrate the FiO₂ Sensor

 **CAUTION:** If using the V4C-560™ FiO₂ sensor kit, the sensor must be calibrated once prior to ventilation and again after **60 minutes** of use to account for the warming of the sensor. Failure to recalibrate after 60 minutes could result in incorrect FiO₂ readings. If desired, the sensor can be recalibrated throughout this warming period to ensure the most accurate readings during this initial phase.


- a. Remove the FiO₂ sensor from the T-connector and expose to room air, shake the sensor for 15-30s, and calibrate the FiO₂ sensor.
- b. Start ventilating with desired settings.
- c. Use the adjustment knob on the front of the oxygen mixer to adjust the FiO₂ percentage delivered. Clockwise turning increases the FiO₂ percentage, while counter-clockwise decreases it. Monitor the FiO₂ on the compatible ventilator. Stop at the desired FiO₂.


 **CAUTION:** It may take a few breaths after FiO₂ adjustment for the FiO₂ reading to settle. Wait for a few breaths before adjusting further.

- d. After a minimum of **1 hour** of ventilation, recalibrate the sensor as described below.
 - ❖ While ventilation continues, remove the FiO₂ sensor from the T-connector and expose it to ambient air.
 - ❖ Using a gloved hand or tubing cap, ensure the T-connector opening is plugged during this time to ensure uninterrupted breath delivery to the patient.
 - ❖ Shake the sensor in ambient air for **45 seconds**.
 - ❖ Recalibrate the sensor in air.
 - ❖ Return sensor to the T-connector.

 **CAUTION:** The duration of shaking of the sensor affects the accuracy of calibration, therefore following the directions will ensure the most accurate readings of the sensor. If shaking is less than the suggested amount residual oxygen on the sensor may affect calibration. If the sensor is shaken for longer than recommended the sensor will cool, impacting the calibration.

- 2) To change the FiO₂ during ventilation, gradually turn the O₂ knob clockwise to increase the FiO₂ or counterclockwise to decrease the FiO₂.
- 3) Monitor the FiO₂ on the compatible ventilator. Stop at the desired FiO₂. Wait a few breaths for FiO₂ to stabilize before re-adjusting.
- 4) Adjust the High and Low FiO₂ alarms to reflect the new FiO₂ percentage. It is recommended to set the alarms within 5% of the required FiO₂. Consult the instructions of the compatible ventilator or the FiO₂ sensor to set and adjust these alarms.

 **WARNING:** The delivered FiO₂ may be affected by a change in breath settings. When settings are adjusted manually or changed due to patient status, check the FiO₂ being delivered and adjust the oxygen knob as needed. For this reason, appropriate setting of the High and Low FiO₂ alarms is required.

 **NOTE:** Patient lung pathology and the settings selected affect the maximum achievable FiO₂. Some use cases will result in a maximum achievable FiO₂ <100%. If the desired FiO₂ cannot be reached, switching to a volume control mode, using a double limb circuit, reducing the driving pressure, or decreasing the breathing rate may increase the FiO₂ delivered. If a patient requires no less than 100% FiO₂ in these use cases, consider alternate means of ventilation.

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